

## Battery Storage Report: An Opportunity to Tap Clean and Reliable Energy for Appalachia's Businesses

A new report explores the potential for Battery Energy Storage (BESS) to provide affordable, efficient, safe and gridresponsive power to the Appalachia region.



## PITTSBURGH, PA, UNITED STATES,

September 3, 2025 /EINPresswire.com/ -- A <u>new report</u> from the Energy & Manufacturing in Appalachia (EMA) explores the potential for Battery Energy Storage (BESS) to provide affordable, efficient, safe and grid-responsive power to the region. As global demand for energy storage accelerates, driven by growth in renewable energy, grid modernization, and decarbonization



BESS has the potential to unlock clean and reliable energy that Appalachia's manufacturers need to grow. Our region can be at the forefront of this energy revolution"

Petra Mitchell, President and CEO of Catalyst Connection

policies, ever more affordable BESS is emerging as a cornerstone of 21st-century energy infrastructure. The global BESS installations are projected to increase from 200 GWh in 2024 to approximately 1194 GWh by 2030 – a compound annual growth rate of 34 percent.

The EMA initiative is led by Catalyst Connection, southwestern Pennsylvania's economic development organization, along with the following regional partners: Alliance for Manufacturing and Technology (AMT), Industrial Modernization Center, Magnet, Manufacturers Resource Center, MANTEC, Maryland MEP, Northeastern

PA IRC, Northwestern PA IRC, Reimagine Appalachia, and West Virginia University.

"BESS has the potential to unlock clean and reliable energy that Appalachia's manufacturers need to grow," said Petra Mitchell, President and CEO of Catalyst Connection. "Our region is in a unique position to leverage federal and state incentives, such as the Investment Tax Credit (ITC), to be at the forefront of this energy revolution."

Technology Advancements Driving Rapid Growth of the BESS Market

The global BESS market is experiencing rapid growth, with technological advancements unlocking residential, commercial, and utility-scale applications. Advancements in Artificial Intelligence (AI) are helping extend battery lifespan and improve efficiency, leading to falling costs. As the Electric Vehicle market has grown, second-life batteries are increasingly being used in stationary storage. Globally, the BESS market size is \$35-50 billion and \$10-16 billion in the United States.

The volume-weighted average price of lithium-ion battery packs across all sectors has fallen to \$139/kWh in 2023, representing a 14 percent decrease from 2022. Industry analysts project that once prices drop below the critical \$100/kWh threshold, market forces will dramatically accelerate adoption, particularly in:

- Electric vehicle markets, due to lifecycle cost parity,
- Grid storage applications with improved return on investment for time-shifting and resilience, and
- Off-grid for rural and developing regions.

High energy demand from emerging industries, combined with aging grid infrastructure in growth regions, is compelling utilities, regulators, and private users to deploy BESS solutions for multiple critical applications, including grid support and congestion relief, demand charge management, transmission deferral, and improved resilience and power quality. Both federal and Pennsylvania incentives can help regional manufacturers take advantage of these emerging applications.

## Read the full report

## **About Catalyst Connection**

Catalyst Connection is a southwestern Pennsylvania economic development organization dedicated to serving manufacturers. For more than 35 years, Catalyst has operated with a focus on powering potential through delivering technical assistance and management consulting services and developing long-standing partnerships across the region. Catalyst maintains a deeply held commitment to modernizing manufacturing and enabling opportunity across business enterprises, individuals, and throughout communities.

Catalyst Connection is supported, in part, by the Pennsylvania Department of Community and Economic Development and the National Institute of Technology Manufacturing Extension Partnership (NIST MEP). As such, we are an affiliate of the Pennsylvania Industrial Resource Center (IRC) and the MEP National Network in southwestern Pennsylvania.

About Energy & Manufacturing in Appalachia initiative

The Energy & Manufacturing in Appalachia (EMA) initiative provides technical assistance and

business support to small and medium manufacturers and enterprises in 156 counties of Maryland, New York, Ohio, Pennsylvania, and West Virginia seeking to expand business, production and jobs in the energy supply chains or to be more energy efficient.

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